

General Mans, Inc. General Offices

Post Office Box 1113
Minneapolis, Minnesota 55440

Engineering Policy

April 11, 1984



Minnesota Pollution Control Agency Division of Solid and Hazardous Waste Attn: Lisa Thorvig, Site Response Section 1935 West County Road B-2 Roseville, MN 55113-2785

Dear Ms. Thorvig:

I am enclosing herewith a draft of the General Mills, Inc. Remedial Action Plan (RAP) pertaining to the former solvent disposal site at property formerly owned by General Mills, Inc. at 2010 E. Hennepin Ave., Minneapolis, MN.

This RAP has been prepared by Barr Engineering Co., Consulting Engineers, at the direction of General Mills, Inc. It is our opinion that this RAP will be adequate to halt the migration of solvents in the drift and Platteville aquifers and to restore these aquifers to acceptable water quality, without endangering the public health or creating a public nuisance.

We would be glad to schedule a meeting with MPCA staff to discuss provisions of the draft consent order you sent to me on March 23, 1984, and the provisions in this draft of the RAP after you have reviewed it.

Sincerely,

Donald J. Thimsen, P.E.

Manager, Environmentnal Engineering

DJT:mb

cc Karen Theisen, USEPA LeRoy Paddock, MPCA APR 12 1984

Remedial Response

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REMEDIAL ACTION PLAN GENERAL MILLS SOLVENT DISPOSAL SITE 2010 East Hennepin Avenue

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PART I -- GROUNDWATER CONTROL SYSTEMS

INTRODUCTION AND PURPOSE

The purpose of Part I of this Remedial Action Plan (hereinafter referred to as the "RAP") is to define the procedures for minimizing the further migration of volatile organic compounds from the former solvent disposal site through the groundwater in the glacial drift and the Platteville Formation. This RAP shall be implemented by General Mills, Inc. and its subcontractors (hereinafter referred to as "General Mills") pursuant to Part _____ of the Consent Decree, to which this RAP is appended and made an integral and enforceable part thereof.

1.0 GROUNDWATER PUMP-OUT SYSTEMS

General Mills shall design, construct, and operate groundwater control systems in the glacial drift and Platteville Formations. General Mills shall monitor the effectiveness of the groundwater control systems. The purpose of the groundwater control systems shall be to minimize the migration of volatile organic compounds through the groundwater in these two aquifers and eventually improve the quality of the groundwater in the glacial drift and Platteville. The groundwater control systems shall consist of pump-out wells, piping, and appropriate treatment facilities. The discharge from the pump-out wells shall be to the municipal storm sewer system after any necessary pre-treatment.

1.1 Glacial Drift

1.1.1 Contaminant Capture Zone

General Mills shall design, construct and operate a glacial drift groundwater pump-out system with wells located on-site and downgradient of the disposal site. The pump-out system shall be designed and operated so as to remove groundwater

in the glacial drift showing a total volatile organic solvent concentration of 1,000 ug/L or greater of the solvents listed in Attachment A. The presently defined limit of the glacial drift groundwater showing a total organic solvent concentration of such compounds in excess of 1,000 ug/L is shown in Attachment B.

If, after operation of the glacial drift pump-out system, the total concentration of the volatile organic solvents listed in Attachment A is below 200 ug/L in samples from any glacial drift monitoring or pump-out well, the operation of the pump-out system can be adjusted to exclude the area monitored by that well. Samples shall be collected from the wells in any excluded area in conformance with Section 1.5 of Part II of this RAP, and the operation of the pump-out system shall be readjusted to capture groundwater in the area monitored by any well where samples show a total concentration of the volatile organic solvents listed in Attachment A of 400 ug/L or greater. The MPCA Director shall be notified at least thirty (30) days in advance of any proposed modification to the operation of the glacial drift groundwater pump-out system.

1.1.2 Pump-Out Well Locations

One glacial drift pump-out well shall be located in the southeastern corner of the Henkel property near the disposal site and three pump-out wells shall be located downgradient of the disposal site. One downgradient pump-out well shall be located on Como Avenue between 19th and 20th Avenues, one shall be located on 18th Avenue, immediately north of Fairmont Street and one shall be located on Brook Avenue Southeast, approximately 100 feet west of 18th Avenue Southeast. The locations of the pump-out wells are shown in Attachment B. The approximate limits of the capture zone for this four well pump-out system are also shown in Attach-

ment B. The glacial drift pump-out wells shall be a minimum of 4 inches in diameter and shall be screened through the entire saturated thickness of the alluvium in the glacial drift. Plans, specifications, and a report summarizing the proposed operating plan for the glacial drift pump-out system shall be submitted to the MPCA Director within 90 days of the effective date of this Consent Decree. The operating plan shall show the capture zone for the proposed pump-out system and shall contain a justification for the location and operating plan of the glacial drift groundwater pump-out system.

1.1.3 System Effectiveness Monitoring

The effectiveness of the glacial drift groundwater pump-out system shall be monitored by taking water level measurements from the network of wells specified in Section 1.3 of Part II of this RAP and collecting and analyzing samples from a network of glacial drift monitoring wells as specified in Section 1.4.1 of Part II of this RAP. The details of the program to monitor the effectiveness of the glacial drift groundwater pump-out system shall be included in the pump-out system operating plan described in Section 1.1.2 of Part I of this RAP.

1.2 Carimona Member of the Platteville Formation

1.2.1 Contaminant Capture Zone

General Mills shall design, construct and operate a Carimona groundwater pump-out system to remove groundwater in the Carimona Member of the Platteville Formation showing a total volatile organic solvent concentration of 50 ug/L or greater of the solvents listed in Attachment A, except benzene, toluene, and xylenes. The capture zone for this Carimona pump-out system shall be the portion of the Carimona Member

of the Platteville that contains such groundwater. The limit of the Carimona groundwater showing such total organic solvent concentration in excess of 50 ug/L is shown in Attachment C.

If, after operation of the Carimona pump-out system, the total concentration of the volatile organic solvents listed in Attachment A except benzene, toluene and xylenes is below 50 ug/L in samples from any Carimona monitoring or pump-out well, the rate of pumping from the pump-out system can be adjusted to exclude the area monitored by that well. Samples shall be collected from the monitoring wells in any excluded area in conformance with Section 1.5 of Part II of this RAP and the pumping rate from the Carimona pump-out system shall be readjusted to capture groundwater in the area monitored by any well where samples show a total concentration of the volatile organic solvents listed in Attachment A except benzene, toluene, and xylenes in excess of 100 ug/L. The MPCA Director shall be notified at least thirty (30) days in advance of any proposed modification to the operation of the Carimona groundwater pump-out system.

1.2.2 Pump-Out Well Locations

The Carimona pump-out system shall consist of Well 108 located on the Henkel property being pumped at a rate of 50 gpm. The location of Well 108 is shown in Attachment C to this RAP. The capture zone of this well is also shown in Attachment C. Plans, specifications, and an operating plan for the use of Well 108 shall be submitted to the MPCA Director within 90 days of the effective date of the Consent Order. The operating plan shall show the capture zone for the Carimona pump-out system and shall contain a justification for the proposed operating plan for the system. The system effectiveness monitoring described in Section 1.2.3 of Part I shall be used to determine if a revised pumping

rate from Well 108 is needed to achieve compliance with Section 1.2.1 of Part I of this RAP.

1.2.3 System Effectiveness Monitoring

The effectivensss of the Carimona pump-out system shall be monitored using water level measurements from the wells specified in Section 1.3 of Part II of this RAP and water samples from the network of Carimona monitoring wells specified in Section 1.4.2 of Part II of this RAP. The details of the program to monitor the effectiveness of the Carimona pump-out system shall be included in the pump-out system operating plan described in Section 1.2.2 of Part I of this RAP.

1.3 Effluent Treatment Requirements

General Mills shall apply for and obtain an NPDES permit for the discharge of the effluents from the glacial drift and Carimona pump-out systems to the City of Minneapolis storm sewer system. An application for an NPDES permit for the effluent from the glacial drift groundwater pump-out system shall be submitted within 30 days of the date the plans, specifications, and operating plan for the glacial drift groundwater pump-out system are submitted to the MPCA Director. An application for an NPDES permit for the Carimona pump-out system shall be submitted within 30 days of the date the plans, specifications, and operating plan for the Carimona pump-out system are submitted to the MPCA Director. The NPDES permit application shall propose monitoring requirements for the effluents from the pump-out systems.

The effluent limitation for the discharge of the glacial drift and Carimona pump-out system effluents to the storm sewer system shall be a total solvent concentration of the solvents listed in Attachment A of no more than 1,500 ug/L. The summation of the volatile organic solvents listed in Attachment A shall be used to determine

compliance with this limitation. This concentration is acceptable for discharge to the storm sewer since the concentration of such volatile organic solvents in the discharge from the pump-out system will be reduced by at least 1,000 by volatilization in the storm sewer between the site and the Mississippi River as shown by testing of the storm sewer effluent conducted by General Mills during a pumping test of Well 108. The discharge from the pump-out wells shall be pre-treated by air stripping as necessary prior to discharge to the storm sewer system in order to comply with the above effluent limitation.

2.0 IMPLEMENTATION OF REMEDIAL ACTIONS

2.1 Glacial Drift Pump-Out System

The glacial drift groundwater pump-out system shall be constructed by General Mills within 180 days of MPCA Director's issuance of an NPDES permit for the discharge of such pump-out system effluent to the municipal storm sewer and shall be operated continuously by General Mills for a maximum of five (5) years in accordance with the operating plan or until samples from the pump-out wells and all the glacial drift monitoring wells identified in Section 1.4.1 of Part II of this RAP show that the total solvent concentration of the solvents listed in Attachment A in the glacial drift groundwater is below 200 ug/L, whichever occurs first. The sum of the concentrations of the volatile organic compounds in Attachment A shall be used to compute the total solvent concentration in the glacial drift groundwater.

2.2 Carimona Pump-Out System

The Carimona groundwater pump-out system for the Carimona Member of the Platteville Formation shall be constructed by General Mills within 120 days of the MPCA Director's issuance of a NPDES permit for the discharge of the effluent from such pump-out system to the municipal storm sewer. The system shall be continuously operated

by General Mills for a maximum of five (5) years in accordance with the operating plan or until samples from the pump-out well and from all the Carimona monitoring wells identified in Section 1.4.2 of Part II of this RAP show a total solvent concentration of the solvents listed in Attachment A except benzene, toluene and xylenes is below 50 ug/L, whichever occurs first. Operation of the Carimona pump-out system may be terminated earlier if requested by General Mills and approved by the MPCA Director.

PART II -- GROUNDWATER MONITORING PROGRAM

INTRODUCTION AND PURPOSE

The purpose of this groundwater monitoring program is to 1) define changes in the distribution of volatile organic solvent concentrations listed in Attachment A after the remedial action plan is implemented and 2) determine if operation of the pump-out systems can be terminated prior to five (5) years of operation.

1.0 MONITORING PROGRAM

This section describes the monitoring well network, sampling frequency and parameters that shall be used in the groundwater monitoring program.

1.1 Analytical Parameter List

All samples collected as part of this groundwater monitoring program shall be analyzed as set forth below for the volatile organic compounds listed in Attachment A to this RAP.

1.2 Sampling and Analytical Procedures

The sampling and analytical procedures that shall be used in this monitoring program are described in Attachment D to this RAP. A laboratory quality assurance protocol for the laboratory that will perform the analyses for this monitoring program shall be submitted

to the MPCA Director prior to beginning the monitoring program required by this RAP. The laboratory shall provide a maximum turn around time of 30 days from the receipt of samples to the completion of analysis and submittal of the data report. The chain of custody record set forth in Attachment E to this RAP shall be used by General Mills to track the handling of samples collected pursuant to this RAP.

1.3 Water Level Monitoring

General Mills shall measure water levels to the nearest 0.01 of a foot prior to the collection of each groundwater sample required in this RAP. Water levels shall be measured in all existing monitoring wells at least once per quarter during the first year of monitoring. The locations of the existing monitoring wells are shown in Attachment F to this RAP.

1.4 Operational Monitoring

The monitoring program described in this section shall be used by General Mills during the time the glacial drift and/or Carimona pump-out systems are operational.

1.4.1 Glacial Drift Monitoring

1.4.1.1 Monitoring Well Network

The glacial drift monitoring well network shall be made up of Wells 1, 3, 4, 107, B, H, J, Q, R, S, and W. The locations of these wells are shown in Attachment G.

1.4.1.2 Sampling Frequency

General Mills shall collect samples from the glacial drift monitoring wells in the glacial drift

monitoring well network specified in Part 1.4.1.1 of this RAP on a quarterly basis for the first year of monitoring in accordance with the implementation schedule specified in Section 2.0 of Part II of this RAP. During the first year of monitoring, each glacial drift groundwater pump-out well shall be sampled once every two months during the time that the pump-out well is being operated.

1.4.1.3 Monitoring Parameters

General Mills shall analyze all glacial drift water samples for the compounds listed in Attachment A of this RAP.

1.4.2 Carimona Monitoring

1.4.2.1 Monitoring Well Network

The monitoring well network for the Carimona Member of the Platteville Formation shall be Wells BB, II, LL, RR, SS, WW, 8, 11, and 13 located as shown in Attachment G to this RAP.

1.4.2.2 Monitoring Frequency

General Mills shall sample Wells BB, II, LL, RR, WW, 8, 11, and 13 once per quarter during the first year of monitoring. General Mills shall sample the remaining wells in the monitoring well network specified in Section 1.4.2.1 of Part II of this RAP once per year. The Carimona groundwater pump-out well (Well 108) shall be sampled once every two months during the first year of monitoring. The monitoring of the Carimona wells shall be in accordance with the implementation schedule specified in Section 2.0 of Part II of this RAP.

1.4.2.3 Monitoring Parameters

General Mills shall analyze the samples collected from the Carimona monitoring wells for the compounds listed in Attachment A except benzene, toluene and xylenes.

1.5 Post-Operational Monitoring

As described in Sections 1.1.1 and 1.2.1 of Part I of this RAP, operation of the glacial drift and/or Carimona pump-out system can be adjusted to exclude areas where the data show that the quality of the groundwater has improved to acceptable levels. In such areas, the frequency of monitoring shall remain as set forth in Section 1.4 of Part II of this RAP for a period of one year from the date of pump-out system modification or for five (5) years from the start of operation of the glacial drift or Carimona pump-out system, whichever occurs first.

1.6 Magnolia Monitoring

Groundwater in the Magnolia Member of the Platteville Formation shall be monitored using Wells QQ, 00, TT, VV, and ZZ, located as shown in Attachment G to this RAP (Magnolia monitoring well network).

General Mills shall sample the wells in the Magnolia monitoring well network once per quarter during the first year of monitoring. The samples shall be analyzed for the volatile organic compounds listed in Attachment A except benzene, toluene and xylenes. The monitoring of the Magnolia monitoring well network wells shall be in accordance with the implementation schedule in Part 2.0 of Part II of this RAP.

Monitoring of the groundwater in the Magnolia Member of the Platteville Formation shall continue for as long as the Carimona pump-out system is operated.

1.7 Bedrock Well Monitoring

The Prairie du Chien-Jordan well on the Henkel property shall be sampled annually. Samples shall be analyzed for the volatile organic compounds in Attachment A except benzene, toluene and xylenes. Monitoring of the groundwater in the Prairie du Chien-Jordan well on the Henkel property shall continue for as long as the Carimona pump-out system is operated.

1.8 Reporting

1.8.1 Monitoring Reports

General Mills shall submit the analytical results to the MPCA Director by the fifteenth of each month for all analyses completed during the previous month unless an extension of time is authorized as described in Part __ of the Consent Decree.

1.8.2 Annual Monitoring Report

General Mills shall submit an annual monitoring report to the MPCA Director on or before ______ of each year that monitoring is carried out. The annual report shall contain the following information:

- a. results of all water level measurements and chemical analyses of the previous year
- b. water level contour maps for each formation showing high and low groundwater levels
- c. maps showing the sum of the compounds analyzed for at each well location

- d. a proposed sampling plan for the next monitoring year with an assessment of the monitoring parameters and frequencies and the need for the addition or deletion of monitoring wells or parameters or a change in sampling frequency
- e. a discussion and summary of the reporting year's data in comparison to previously available data.

2.0 IMPLEMENTATION OF MONITORING PROGRAM

General Mills shall implement the groundwater monitoring program described in Section 1.0 of Part II of this RAP, in accordance with the requirements specified in this RAP. On or before _______, 1984 or as soon as the necessary permits are obtained and the construction provided for in this RAP is completed, whichever occurs later, General Mills shall commence the first year's monitoring of the groundwater as specified in Sections 1.1 through 1.7 of Part II of this RAP.

General Mills shall monitor the groundwater in conformance with the monitoring program set forth in this RAP during the time either or both the glacial drift and Carimona pump-out systems are operating unless a shorter time period is requested by General Mills and approved by the MPCA Director.

ATTACHMENT A ANALYTICAL PROGRAM PARAMETERS

Chlorinated Volatile Solvents

- 1,1-Dichloroethane
- 1,2-Dichloroethane
- 1,2-Dichloroethylene, cis
- 1.2-Dichloroethylene, trans
- 1,1,2,2-Tetrachloroethane

Tetrachloroethylene

1,1,1-Trichloroethane

Trichloroethylene

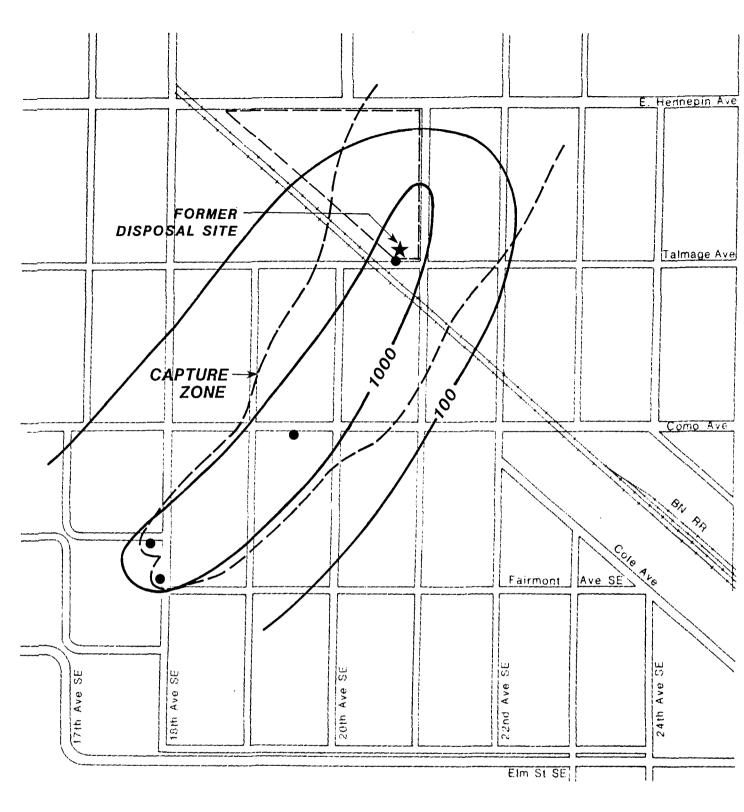
Non-Chlorinated Volatile Solvents

Benzene

Toluene

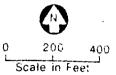
Xylenes

Analyzed only on samples from glacial drift.



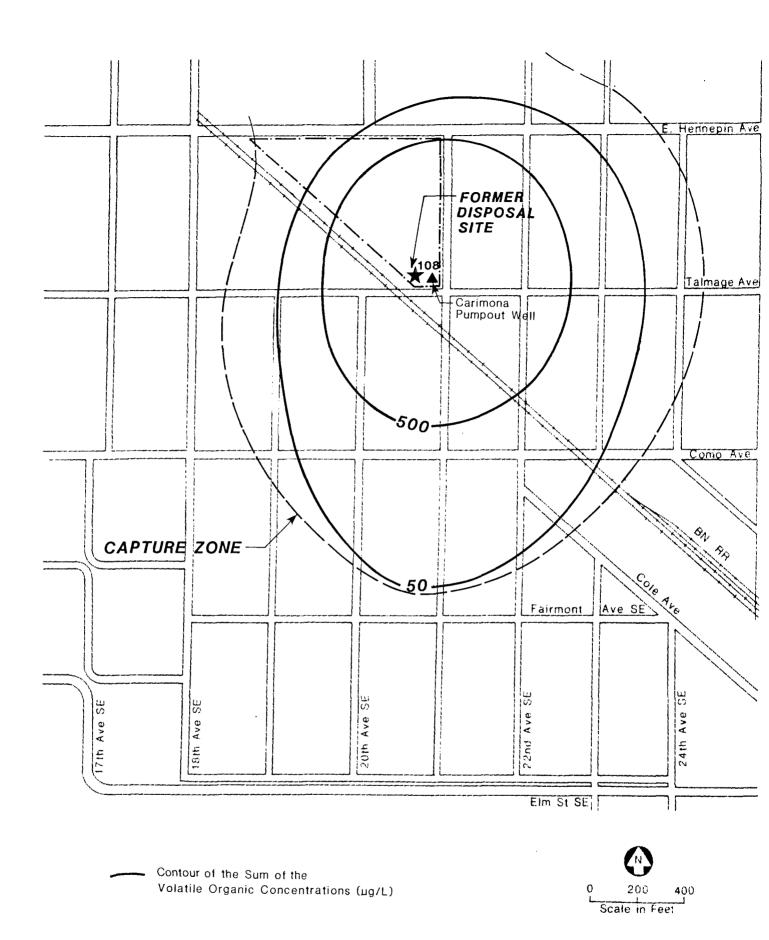
Glacial Drift Pumpout Wells

Contour of the Sum of the Volatile Organic Concentrations (ug/L)



ATTACHMENT B

GLACIAL DRIFT PUMPOUT SYSTEM



ATTACHMENT C CARIMONA PUMPOUT SYSTEM

ATTACHMENT D SAMPLING AND ANALYTICAL PROCEDURES

Sampling Procedures

The water sampling procedures described in this section are applicable to the volatile organic solvents shown in Attachment A.

Prior to sampling, each well shall be flushed by pumping until dry or until five well volumes have been removed. Water samples shall be collected by one of the following procedures:

- Pump-Out Wells -- Samples shall be collected directly from a metal tap located on the pump discharge line.
- 4-Inch Diameter or Larger Wells Without Pumps -- These wells shall be flushed with a submersible pump prior to sampling. The riser pipe of the submersible pump shall be equipped with a device so that the water in the riser pipe does not re-enter the well when the pump is turned off. The sample for analysis shall be collected with a specially prepared bailer.
- Wells Smaller Than 4-Inches in Diameter Without Pumps -- These wells shall be flushed by either bailing or pumping. Pumping shall be with a small diameter submersible pump or with a centrifugal pump. When a centrifugal pump is used, the intake shall be stainless steel that has been cleaned in the laboratory. The sample for analysis shall be collected using a bailer.

Sampling bailers shall be constructed of stainless steel and equipped with a teflon foot valve. Bailers shall be raised and lowered with a stainless steel wire. Each bailer shall be cleaned in the laboratory prior to use by washing with soap and water and rinsing sequentially with tap water and distilled water. The bailers shall be baked at 103°C for at least one hour.

The bailers shall be transported to the field wrapped in aluminum foil with the shiny side out. Each specially prepared bailer shall be used to collect the samples from one well until it is cleaned in the laboratory according to the previously described procedure.

The samples for volatile (purgeable) organic analyses shall be placed in septum vials which have been designed specifically for volatile organic samples. No head (air) space shall be left in the top of the sample vial. After the samples have been collected, the septum vials shall be individually wrapped in aluminum foil to minimize the transfer of volatile compounds through the teflon septum. It is anticipated that 6 to 10 vials shall be filled from each well.

The sampling vials shall be new glass vials equipped with teflon septum caps. The vials shall be prepared by washing with soap and water, rinsing with tap water, distilled water and baking in a muffle furnace at a temperature not less than 450°C for at least 60 minutes. The bottles shall be allowed to cool in a desicator over a bed of activated carbon prior to capping. All caps and septums shall be new. Septums shall be prepared by placing them with the teflon side of the septums facing up on a sheet of aluminum foil with the dull side of the foil facing up and baking them at a temperature not less than 200°C for at least one hour. The septums shall be allowed to cool in a desicator over a bed of activated carbon. Both vials and septums shall be stored in a desicator, over a bed of activated carbon, until they are assembled. The vials, caps, and septums shall be assembled in a low solvent environment. After capping, all vials shall be individually wrapped in aluminum foil with the shiny side out.

Analytical Procedures

The methods that shall be used to analyze the water samples are described in this section. Where such methods exist, water samples shall be extracted by EPA approved methods.

The required analytical methods and EPA recommended detection limits for the organic solvents are:

	Method	Detection Limits
Chlorinated Volatile Organic Solvents	601	0.3-1.81 ug/L
Non-Chlorinated Organic Solvents	602	0.3-1.81 ug/L

Prior to the start of sample analysis, General Mills shall visit the laboratory selected to do the analyses to review sample handling, extraction and analytical methods and to review data reporting methods.

Daily laboratory performance shall be evaluated to document the validity of data being produced and to show that reproducible results are being obtained (precision) and that the true concentrations in the sample (accuracy) are measured.

Approximately 10 percent of all samples shall be analyzed in duplicate. The results of the analysis of duplicate samples will help define the intra-laboratory analytical variability of the methods. To measure the accuracy of the measurements, 5 to 10 percent of the samples shall be spiked with the compounds being analyzed. Reagent blanks shall be prepared and analyzed. Calibration curves shall be prepared for all compounds using authentic standard materials. Quantification shall be made by comparison of sample response with the daily standard response. The results of these investigations shall be included with the sample results.

Pertinent information concerning the samples collected shall be entered into the sample history forms. Information that shall be included shall be the date that samples were received by the laboratory, date of extraction, date of analysis, analytical techniques, and the initials of the analyst. The dates entered on the sample history forms shall be compared with the holding times for the parameters listed in Table E-1 of Attachment E, "Chain of Custody Procedures". Sample history forms for the entire groundwater monitoring network shall be archived.

ATTACHMENT E QUALITY CONTROL PROCEDURES

The following chain of custody procedures shall be used in the field for each water sample collected:

- 1. Water samples shall be obtained using sampling techniques described in Attachment D, "Water Sampling Procedures". Samples shall be collected in glass containers with teflon-lined septum, preserved at 4°C and analyzed within a maximum 14 day holding time. Sampling equipment shall be under the direct supervision of the chief field person involved with the sampling program. The holding time for the samples collected shall start at the time of collection.
- 2. A label shall be attached to each sample container when the sample is collected. The label shall contain the sample number, time taken, date taken, source of sample (station number, type of sample and name of project), and the name of the person taking the sample. The label shall be initialed, timed and dated by the person collecting the sample. Labels shall be filled out in ballpoint pen using waterproof ink. Individual sample containers or groups of sample containers shall be secured against tampering.
- 3. Blank samples shall be collected and analyzed along with each group of samples submitted to the laboratory. The blank samples will serve as a check of the equipment and bottle cleaning procedures and the sample handling techniques. The bottles to be used for the blank samples shall be transported to the field with the other sample bottles. Deionized organic free water shall be added to the blank sample bottles either before or after the bottles have been returned from the field. During the collection of the groundwater samples, the bailers shall also be checked for contamination. To perform this check, an additional bailer shall be prepared according to the procedures described in Attachment D, "Water Sampling Proce-

dures". This bailer shall be transported to the field with the bailers used for sample collection. Upon returning to the laboratory, the extra bailer shall be used to prepare a field blank. The bailer shall be rinsed with distilled-deionized water and the water shall be added to the blank bottle.

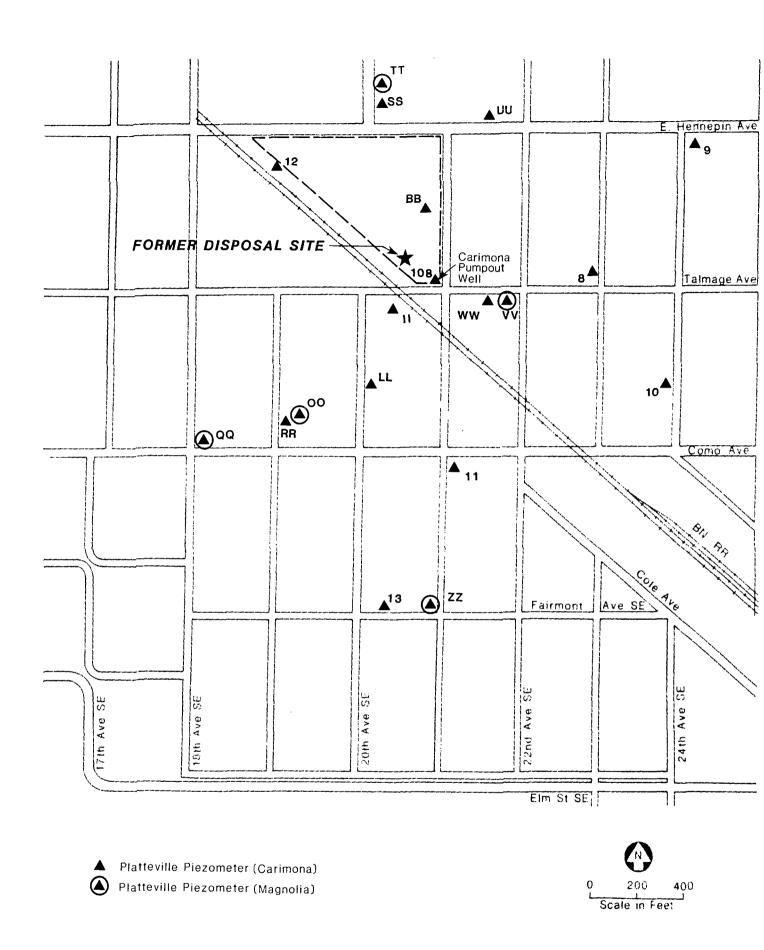
Blanks shall be prepared each time samples are collected. Parameters which are to be analyzed on the set of samples shall also be analyzed on the blank samples using the same analytical procedures. Data on the blank samples shall be included in the reports.

- 4. Duplicate water samples shall be collected on a random basis. These samples shall be submitted to the laboratory as masked samples. The comparisons between the masked and control samples shall be compared to the laboratory's precision quality control data. If the results indicated that any analysis was out of control, the analysis of that parameter shall be stopped until the analytical problem has been identified and resolved.
- 5. The field sampler shall be responsible for the collected samples until they are properly dispatched to the laboratory or turned over to an assigned custodian. The field sampler shall ensure that each container is in his/her possession or sight at all times or is locked.

After sampling all monitoring well locations, a large sample transfer container shall be used to secure and prevent tampering. Water samples shall be kept cool during transit.

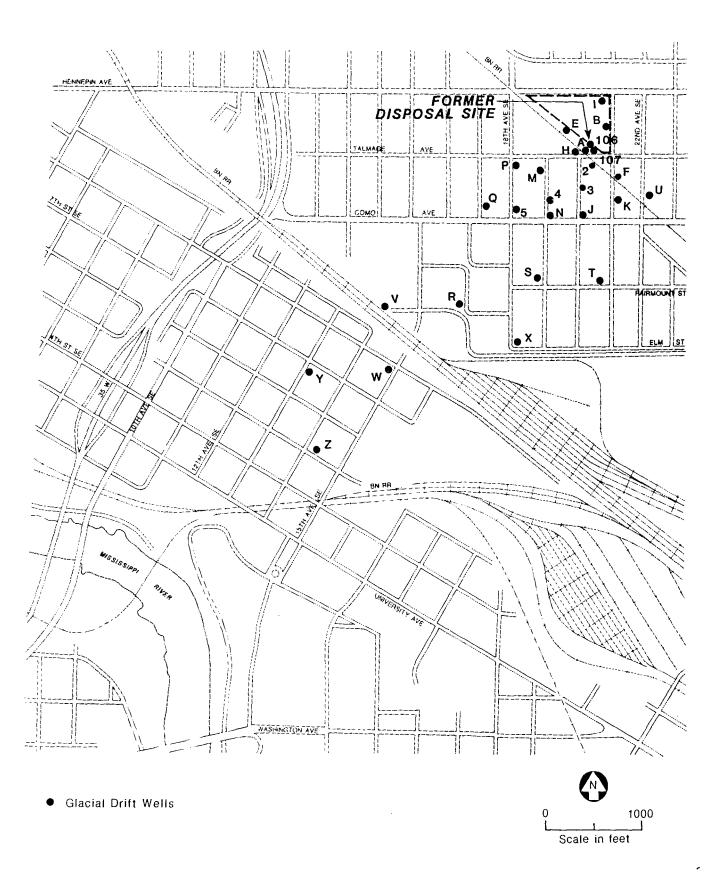
The addresses of the consignee and consignor shall be printed on the outside of the transfer container, or attached firmly thereon by cards or labels. As necessary, warning and descriptive labels shall be attached to the transfer container. A sample transmittal sheet shall be included with each transfer container to identify the samples in the transfer container and to summarize the analyses to be carried out on each sample.

Samples shall be delivered to the laboratory either by car/truck or flown in the laboratory using scheduled airlines or special air carriers. Once the samples leave the possession of the field sampler, the field sampler shall make an entry in the field log identifying the person who transported the samples, the origin of the samples, departure date and time, and the destination of the samples. A follow-up telephone contact shall be made to ensure that the samples arrived at the laboratory. The date and time that samples arrived at the laboratory shall be recorded in the log.

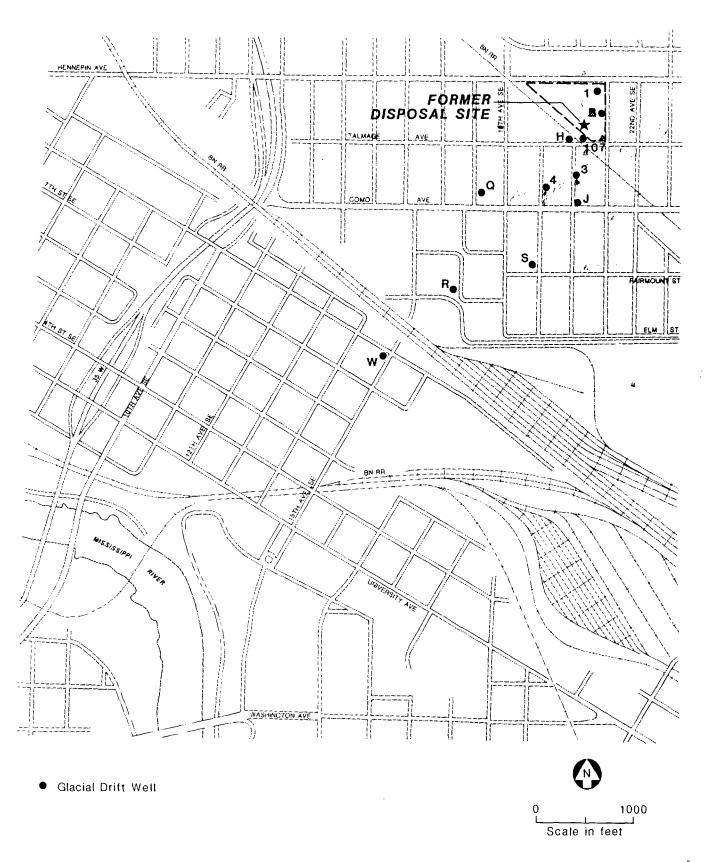


ATTACHMENT F

CARIMONA & MAGNOLIA WATER
LEVEL MONITORING WELLS

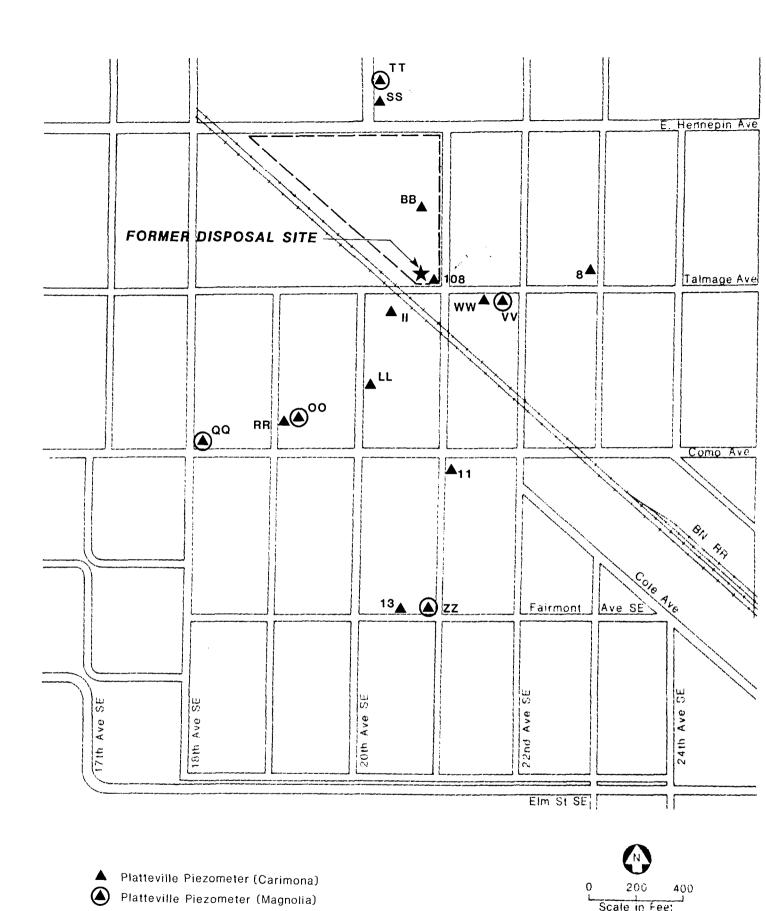


ATTACHMENT F (Cont.)
GLACIAL DRIFT WATER
LEVEL MONITORING WELLS



ATTACHMENT G (Cont.)

GLACIAL DRIFT SAMPLING WELLS



ATTACHMENT G

CARIMONA & MAGNOLIA
SAMPLING WELLS